

FIGURE 1A

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graph TD
    30((30)) --> 32[RECEIVING A REQUEST INDICATING A PRIMARY PRODUCT OR SERVICE UTILIZING A NETWORK]
    32 --> 34[DISPLAYING THE PRIMARY PRODUCT OR SERVICE ON A GRAPHICAL USER INTERFACE UTILIZING THE NETWORK IN RESPONSE THE REQUEST]
    34 --> 36[DISPLAYING AT LEAST ONE SECONDARY PRODUCT OR SERVICE ASSOCIATED WITH THE PRIMARY GRAPHICAL USER INTERFACE UTILIZING THE NETWORK IN RESPONSE THE REQUEST]
    36 --> 38[ALLOWING A USER TO SELECT THE AT LEAST ONE SECONDARY PRODUCT OR SERVICE UTILIZING THE NETWORK]
    38 --> 39{SHOPPING CART ICON}
    39 -- Y --> 40[LINKING TO A SHOPPING CART INTERFACE]
    39 -- N --> 41{ADD ICON}
    40 --> 41
    41 -- Y --> 42[ADDING THE PRIMARY PRODUCT AND ANY SECONDARY PRODUCT SELECTED BY THE USER TO SHOPPING CART]
    41 -- N --> 43{CHECK OUT ICON}
    42 --> 43
    43 -- Y --> 44[LINKING TO A CHECK OUT INTERFACE IFOR PURCHASING PURPOSES]
    43 -- N --> 45{ }
    44 --> 45
    style 45 fill:none,stroke:none
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30

32 RECEIVING A REQUEST INDICATING A PRIMARY PRODUCT OR SERVICE UTILIZING A NETWORK

34 DISPLAYING THE PRIMARY PRODUCT OR SERVICE ON A GRAPHICAL USER INTERFACE UTILIZING THE NETWORK IN RESPONSE THE REQUEST

36 DISPLAYING AT LEAST ONE SECONDARY PRODUCT OR SERVICE ASSOCIATED WITH THE PRIMARY GRAPHICAL USER INTERFACE UTILIZING THE NETWORK IN RESPONSE THE REQUEST

38 ALLOWING A USER TO SELECT THE AT LEAST ONE SECONDARY PRODUCT OR SERVICE UTILIZING THE NETWORK

39 SHOPPING CART ICON

40 LINKING TO A SHOPPING CART INTERFACE

41 ADD ICON

42 ADDING THE PRIMARY PRODUCT AND ANY SECONDARY PRODUCT SELECTED BY THE USER TO SHOPPING CART

43 CHECK OUT ICON

44 LINKING TO A CHECK OUT INTERFACE IFOR PURCHASING PURPOSES

Fig. 1B

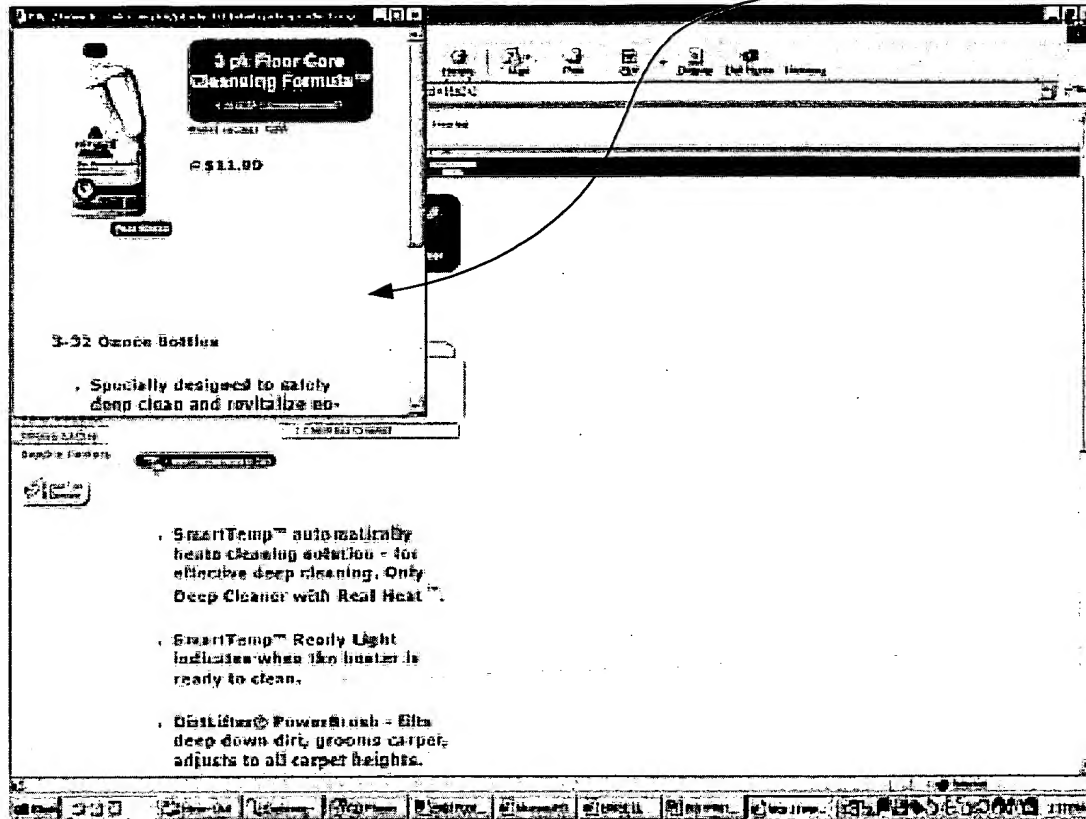


Fig. 1C

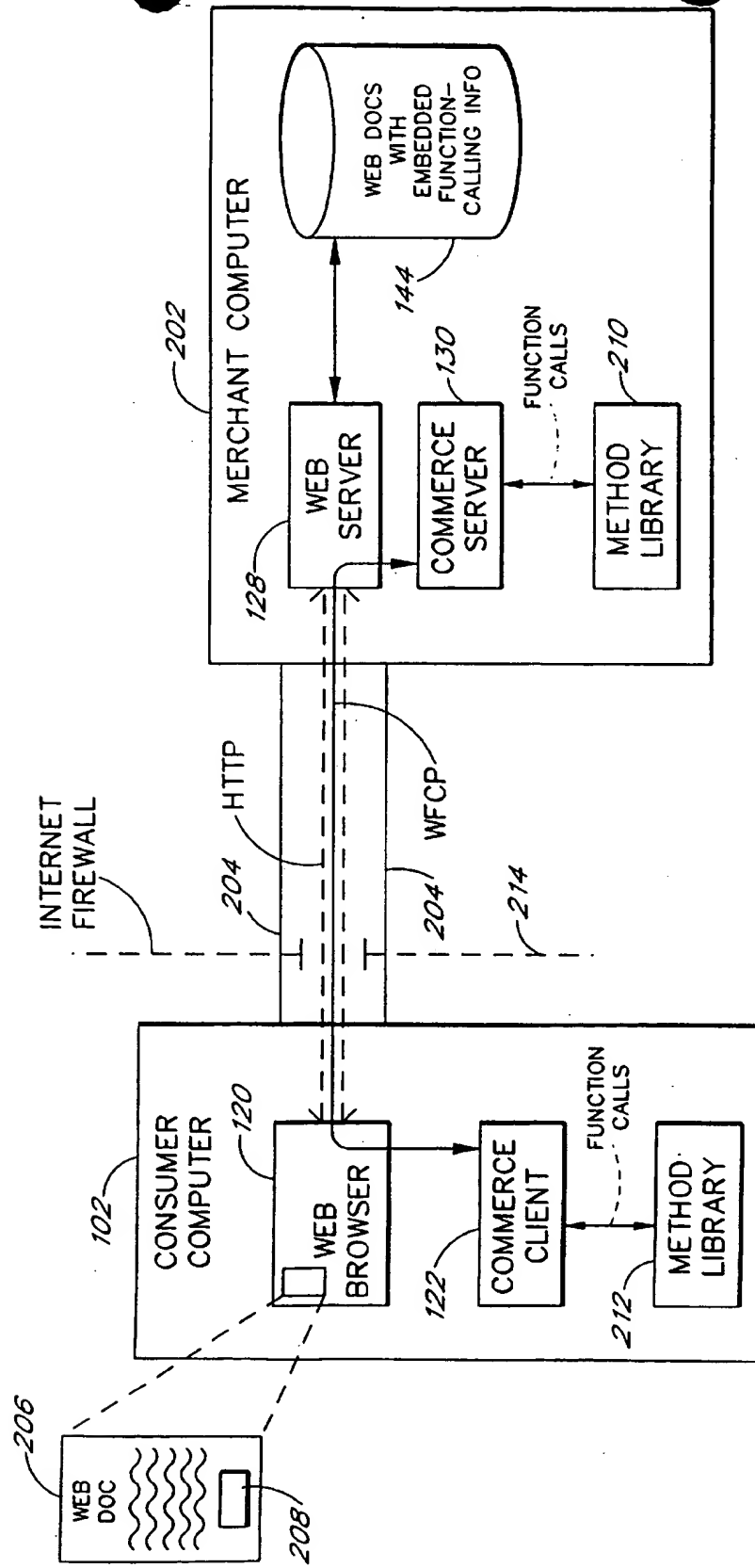
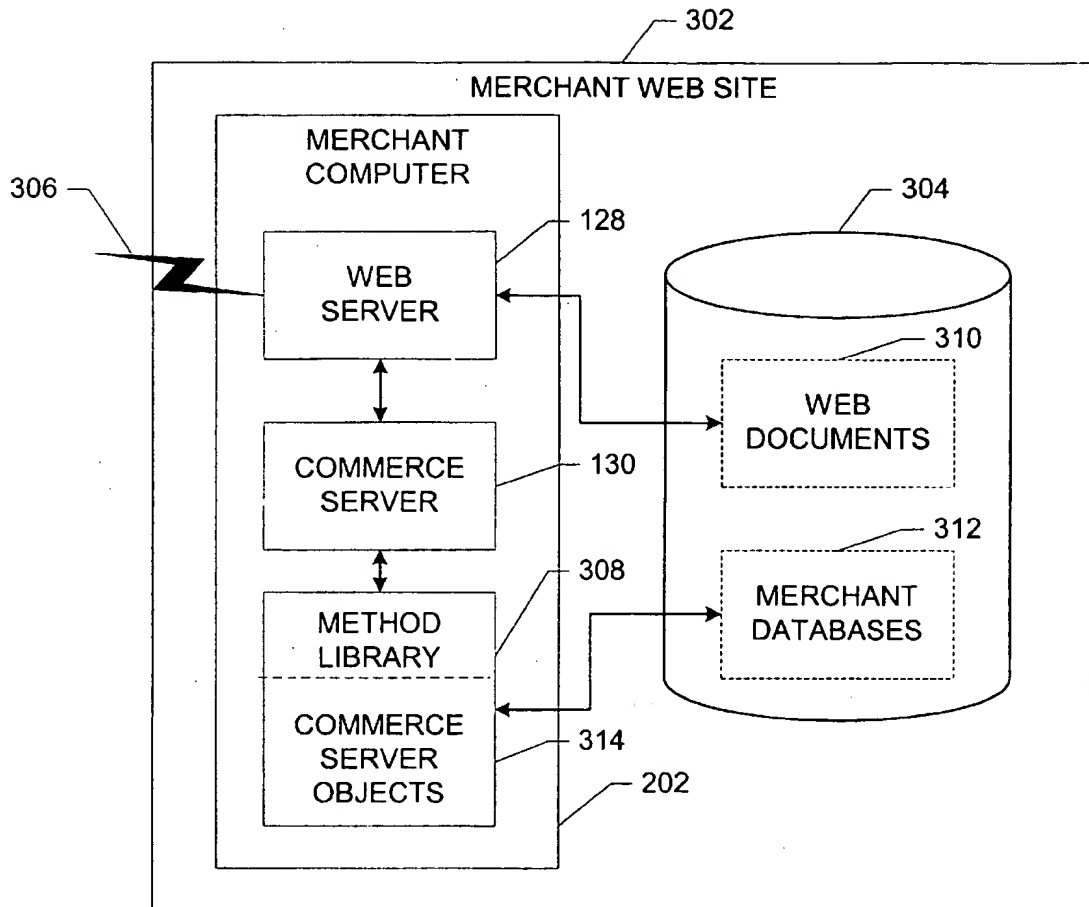


FIG. 2



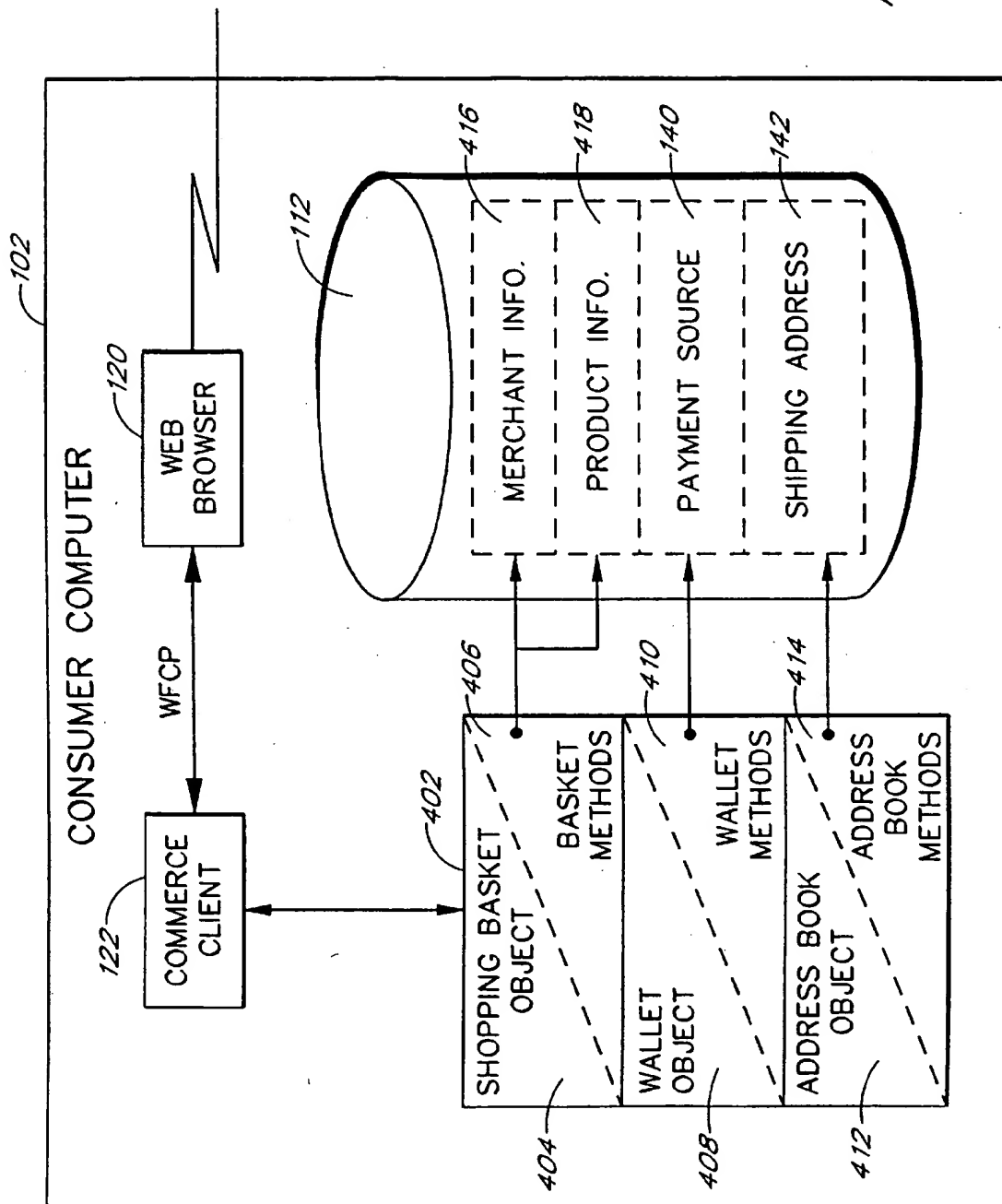


FIG. 4

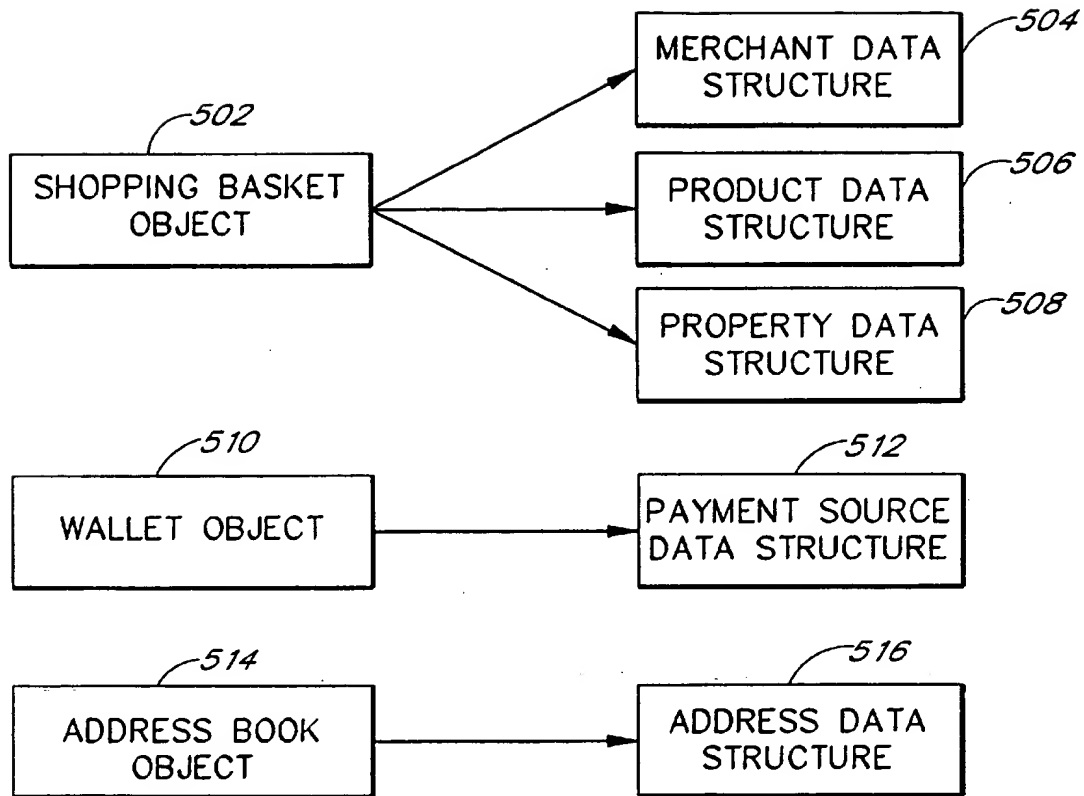


FIG. 5

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graph TD
    602[WEB BROWSER ISSUES HTTP POST MESSAGE TO WEB SERVER] --> 604[WEB SERVER RETRIEVES PRODUCT INFORMATION AND SENDS TO WEB BROWSER IN MIME FORMAT]
    604 --> 606[WEB BROWSER LAUNCHES COMMERCE CLIENT]
    606 --> 608[COMMERCE CLIENT CONSTRUCTS IN-MEMORY REPRESENTATION OF MERCHANT, PRODUCT, PAYMENT ADDRESS DATA]
    608 --> 610[WEB BROWSER PASSES MIME MESSAGE COMMERCE CLIENT]
    610 --> 612
    subgraph 612 [ ]
        612[NAVIGATE MEMORY STRUCTURES LOOKING FOR MERCHANT NAME PASSED WITH MIME MESSAGE, APPEND NEW MERCHANT STRUCTURE TO LINKED LIST IF NOT FOUND]
        612 --> 614[NAVIGATE LINKED LIST OF PRODUCT DATA STRUCTURES REFERENCED BY MERCHANT STRUCTURE]
        614 --> 616[ALLOCATE MEMORY FOR NEW PRODUCT DATA STRUCTURE, POPULATE WITH DATA PACKAGED IN MIME MESSAGE, LINK IT TO END OF LINKED PRODUCT DATA STRUCTURES]
    end
    616 --> 618
    subgraph 618 [ ]
        618[NAVIGATE MERCHANT STRUCTURE]
        618 --> 620[NAVIGATE TO PRODUCT USING SKU VALUE]
        620 --> 622[FOR EACH PROPERTY PASSED WITH MIME MESSAGE, NAVIGATE LINKED LIST OF PROPERTIES; IF PROPERTY NAME EXISTS IN THE LINKED LIST, UPDATE ITS VALUE USING PASSED VALUE, ELSE APPEND NEW PROPERTY STRUCTURE TO END OF LINKED LIST]
        622 --> 624[EXECUTE VIEW SHOPPING BASKET STEPS]
        624 --> 624
    end
    624 --> 624
    624 -- SET ITEM PROPERTY --> 618
    616 -- ADD LINE ITEM --> 618

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FIG. 6


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graph TD
    702[CONSUMER SELECTS VIEW SHOPPING BASKET] --> 704[WEB BROWSER ISSUES LOCAL FUNCTION CALL]
    704 --> 706[COMMERCE CLIENT IS LAUNCHED BY LOCAL PORT MONITOR]
    706 --> 708[SHOPPING BASKET COM OBJECT IS LOADED BY COMMERCE CLIENT]
    708 --> 710[CHECK FLAG = 0]
    710 --> 712[FOR ALL MERCHANTS]
    712 --> 714[NAVIGATE TO GIVEN MERCHANT]
    714 --> 716[NAVIGATE TO NEXT PRODUCT DATA STRUCTURE]
    716 --> 718{END OF LIST ?}
    718 -- YES --> 720[RETURN (0)]
    718 -- NO --> 722{IS PRODUCT FLAG = CHECK FLAG ?}
    722 -- YES --> 724[RETURN POINTER TO PRODUCT DATA STRUCTURE AND ADD PRODUCT NAME TO LIST BOX STRUCTURE]
    722 -- NO --> 716
    724 --> 726[SAVE POINTER LOCATION]
  
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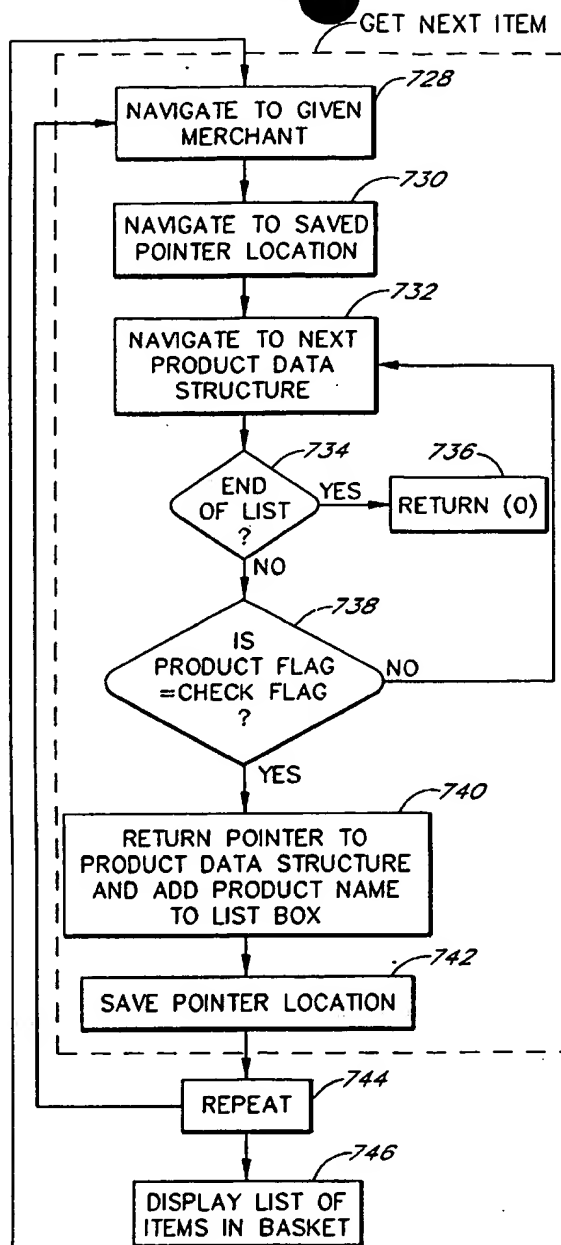


FIG. 7

CONSUMER SELECTS
VIEW SHOPPING BASKET

CONSUMER SELECTS
PRODUCT NAME IN LIST

CONSUMER PRESSES DELETE
KEY, OR SELECTS REMOVE
ITEM BUTTON

DID
CONSUMER CONFIRM
DELETION
?

EXIT

USE MAINTAINED POINTER
TO PRODUCT DATA STRUCTURE
TO LOCATE PRECEDING PRODUCT
DATA STRUCTURE OR POINTER

USE MAINTAINED POINTER
TO PRODUCT DATA STRUCTURE
TO LOCATE FOLLOWING PRODUCT
DATA STRUCTURE

SET PRECEDING POINTER
TO POINT TO FOLLOWING
PRODUCT DATA STRUCTURE

FIG. 8

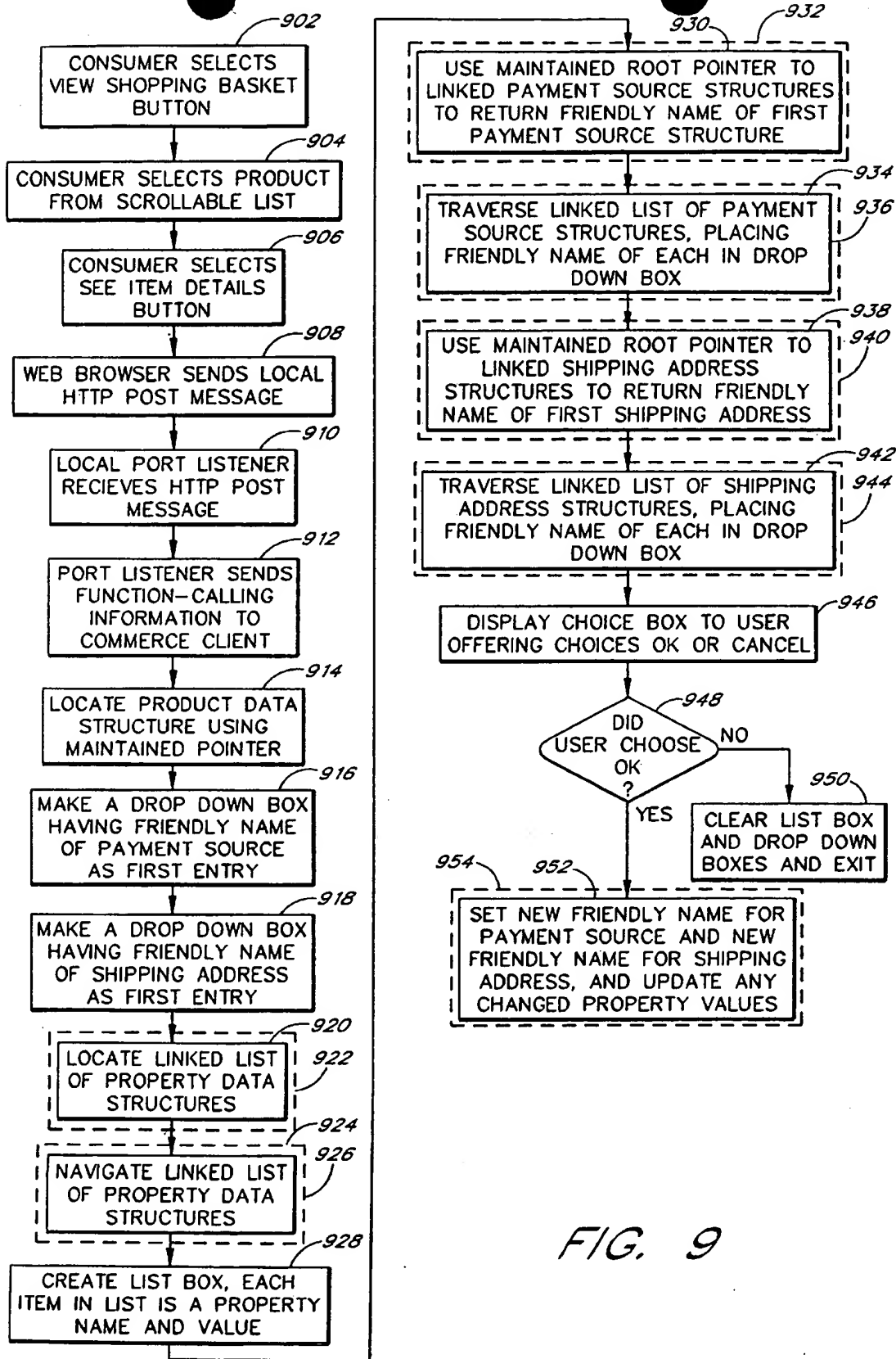


FIG. 9

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graph TD
    1002[CONSUMER SELECTS VIEW WALLET OPTION] --> 1004[LOAD WALLET OBJECT]
    1004 --> 1006[USE MAINTAINED ROOT POINTER TO LINKED PAYMENT SOURCE STRUCTURES TO RETURN FRIENDLY NAME OF FIRST PAYMENT SOURCE STRUCTURE]
    1006 --> 1010
    subgraph 1010 [ ]
        1010[TRAVERSE LINKED LIST OF PAYMENT SOURCE STRUCTURES, PLACING FRIENDLY NAME OF EACH IN A LIST BOX]
    end
    1010 --> 1012
    1012[DISPLAY BROWSABLE LIST BOX OF FRIENDLY NAMES FOR PAYMENT SOURCES] --> 1014[DISPLAY OPTIONS TO ADD, EDIT, DELETE, OR MAKE PREFERRED PAYMENT SOURCES]
    1014 --> 1016[ADD]
    1014 --> 1018[EDIT]
    1014 --> 1020[DELETE]
    1014 --> 1022[MAKE PREFERRED]
    1016 --> 1018[DISPLAY DIALOG BOX WITH FIELDS FOR CARD #, EXPIRE DATE, NAME, BILLING ADDRESS, AND BANK]
    1018 --> 1020[USER FILLS IN FIELDS]
    1020 --> 1022[USER ENTERS PASSWORD TWICE]
    1022 --> 1024[WRITE ENCRYPTED BLOB, ASSOCIATE WITH FRIENDLY NAME]
    1024 --> 1026[DELETE]
    1026 --> 1028[CONFIRM OK TO DELETE]
    1028 --> 1030[DELETE PAYMENT SOURCE DATA]
    1018 --> 1026[PROMPT USER FOR PASSWORD AND USE PASSWORD TO DECRYPT BLOB FOR EDITING]
    1026 --> 1028[DISPLAY DIALOG BOX WITH FIELDS FOR CARD #, EXPIRE DATE, NAME, BILLING ADDRESS, AND BANK]
    1028 --> 1030[USER MODIFIES FIELDS]
    1030 --> 1032[USER ENTERS PASSWORD TWICE]
    1032 --> 1034[WRITE ENCRYPTED BLOB, ASSOCIATE WITH FRIENDLY NAME]
    1034 --> 1040[ASSOCIATE SELECTED FRIENDLY NAME WITH DEFAULT PAYMENT SOURCE]

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FIG. 10

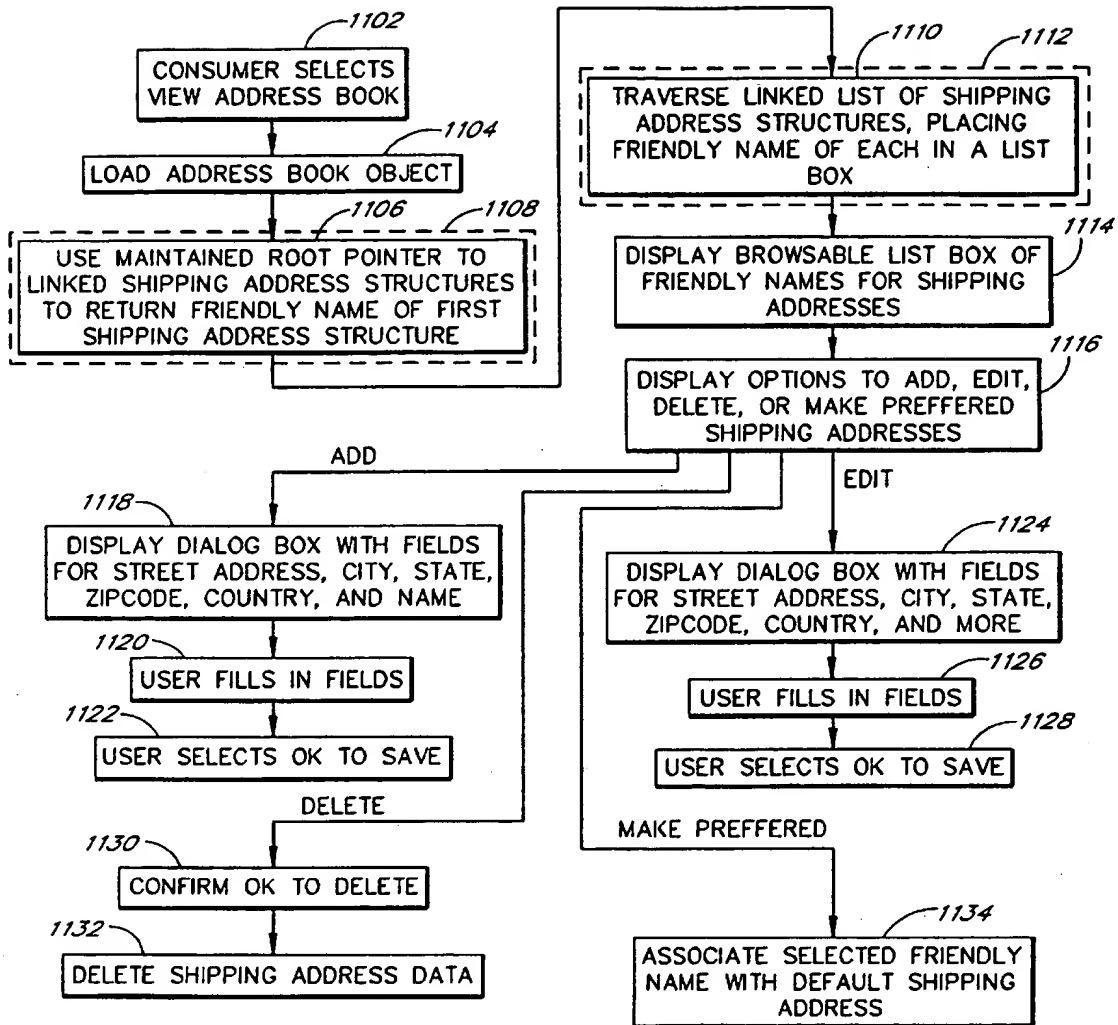


FIG. 11

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graph TD
    1202[CONSUMER SELECTS READY TO PAY BUTTON] --> 1204[LOAD SHOPPING BASKET OPTION]
    1204 --> 1206[USE MAINTAINED ROOT POINTER TO LINKED MERCHANT STRUCTURES TO TRAVERSE LINKED MERCHANT LIST AND LINKED PRODUCT LISTS AND RETURN FIRST UNPURCHASED PRODUCT]
    1206 --> 1210[TRAVERSE REMAINING MERCHANT AND PRODUCT LINKED LISTS AND RETURN DATA FOR ALL UNPURCHASED PRODUCTS]
    1210 --> 1212[GENERATE LIST OF ALL UNPURCHASED PRODUCTS AND SORT BY MERCHANT AND BY PaymentFriendlyName]
    1212 --> 1214[DISPLAY LIST OF UNPURCHASED PRODUCTS TO USER AND CONFIRM PURCHASE REQUEST]
    1214 --> 1218[LOAD WALLET OBJECT]
    1218 --> 1220[FOR EACH MERCHANT HAVING A PRODUCT IN THE LIST...]
    1220 --> 1222[FOR EACH UNIQUE PaymentFriendlyName ...]
    1222 --> 1224[EXTRACT BLOB ASSOCIATED WITH PaymentFriendlyName]
    1224 --> 1226[PROMPT USER FOR PASSWORD]
    1226 --> 1228[DECRYPT BLOB INTO PAYMENT INSTRUCTION]
    1228 --> 1230[CALL RSA ENCRYPTION DLL PASS PAYMENT INSTRUCTION AND PRODUCT LIST]
    1230 --> 1232[SEND ORDER TO MERCHANT URL]
    1232 --> 1234{END OF PRODUCTS FOR MERCHANT ?}
    1234 -- NO --> 1220
    1234 -- YES --> 1236{ALL MERCHANT ORDERS DONE?}
    1236 -- NO --> 1220
    1236 -- YES --> 1238[MARK ALL PRODUCTS AS "PURCHASED"]
    1238 --> 1240[UPDATE VIEWS]

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FIG. 12